UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,515	12/22/2000	John Baggs	81862P187	1054

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EXAMINER
ELALLAM, AHMED

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/746,515	BAGGS ET AL.
	Examiner	Art Unit	
	AHMED ELALLAM	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .
2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-27* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____ .
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____ .
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____ .

DETAILED ACTION

This is responsive to Amendment filed on 06/26/2006.

Claims 1-27 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1.   Claims 26-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 26, the phrase "the plurality of other service programs" is confusing because it lack antecedent basis.

Claim 27 depends from claim 26, thus it is subject to the same rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Brown et al, US (6,747,995) in view of Morgan et al, US 2001/0024439. Hereinafter

referred to respectively as Brown and Morgan.

Regarding claims 1, 7, with reference to figures 2 and 5, Brown shows a digital

signal processor(s) 501 in connection with a DRAM 505 (Dynamic Random access

memory) and CAD (Content addressable memory) over an HPI bus 503. See column

10, lines 17-47.

The difference between claims 1, 7 and the teaching of Brown is that While

Brown discloses that the DSPs uses software (claimed service program) (Brown,

column 11, lines 36-40), it doesn't specify that the software is delivered to the DSP from

a memory over the HPI bus, the memory stores a plurality of service programs

associated with voice communications, fax communication, video communication, and

audio communications.

However, with reference to figure 2, Morgan discloses a DSP running a software

program (claimed service program) downloaded from a plurality of download modules

204, the download modules includes software modules to handle any

telecommunication protocol known in the art, see paragraph [0029]. (Claimed memory

stores a plurality of service programs associated with voice communications, fax

communication, video communication, and audio communications).

Therefore, it would have been obvious to a person of ordinary skill in the art, at

the time the invention was made to modify the system of Brown using the downloading

of software modules to respective DSP(s) as indicated by Morgan. A person of skill

would do so by recognizing the benefit of having each DSPs of Brown the capability to provide a single-function-multi-channel processing (Morgan, paragraph [0036]. The advantage would be the reduction of cost (Morgan, [0036]. It is also advantageous to enable the method/system of Brown to provide more services to its customers (Morgan, paragraph [0029].

Regarding claim 19, claim 19 has substantially the same scope of claim 1, in addition it specify an interface that determine whether DSP need a service program. Morgan further discloses a DSP CONTRTOL AND ALLOCATION SOFTWARE 202 (FIGURE2) (corresponding to claimed interface manager to determine whether a digital signal processor needs a service program).

Regarding claims 2, 8, 14, with reference to figure 3, Brown discloses generating data packet from a pulse code modulated data stream using DSP(s) 301. See column 8, lines 9-11. (Claimed generating data packet from a pulse code modulated data stream using the service program).

Regarding claim 3, 9 and 15, with reference to figure 1, Brown shows PSTN network. (Claimed receiving the pulse code modulation data streams from a public switched telephone network).

Regarding claims 4, 10, and 16, with reference to figure 1, Brown shows the derived voice platform between the CO switch and a data network (the data network being the Internet). (Claimed transmitting the data packet over an Internet network).

Regarding claims 5, 11 and 17, Brown discloses data packets being voice data packets. See column 8, lines 9-11. (Claimed data packet includes data comprising at

least one of voice communication, fax communication, modem communication, and audio communication).

Referring to claims 6, 12 and 18, with reference to figure 1 and figure 3, Brown discloses generating data packet from a pulse code modulated data stream using DSP(s) 301. See column 8, lines 9-11. Brown also shows the derived voice platform between the CO switch and a data network (the data network being the Internet). (Claimed receiving a packet from an Internet protocol network, generating a pulse code modulation data stream from the packet using the service program and transmitting the pulse code modulation data stream over a public switched telephone network).

Regarding claim 13, claim 13 is a computer readable medium having instruction for implementing the method of claim 1, Brown in view of Morgan do not disclose that the method is implemented using a computer readable medium using executable instruction. However, it would have been obvious to one skilled in the art at the time of the invention was made to implement the Brown in view of Morgan' system in this manner, because the developmental costs of a software implementation are less than that of a hardware based implementation. Furthermore, software is easier to upgrade than hardware.

Regarding claim 20, Morgan discloses a plurality of download modules 204, see figure 2, paragraph [0029]. (Claimed overlay memory to store a plurality of algorithms).

Regarding claim 21, as indicated above with reference to claim 1, the system of Brown in view of Morgan comprises a DSP. (Figure 5, DSP 501). (Claimed apparatus further comprising the digital signal processor).

Regarding claim 22, with reference to figure 5, Brown shows a plurality of digital signal processors 501 connected to the host port interface bus 503. See column 10, lines 32-39.

Regarding claim 23, it is also inherent to Brown in view of Morgan to have the means for managing the host port interface bus 503 (Brown) because that is required for the data and control access to and from the HPI bus. (Claimed apparatus comprising a packet pump comprising the interface manager, and a host port interface bus manager coupled to the host port interface bus).

Regarding claim 24, Brown discloses a PSTN network coupled to transmit a pulse code modulation data stream See column 6, lines 34-49. (Examiner interpreted the transmission of the PCM of Brown as equivalent to the claimed transmission of PCM data streams to the packet pump).

Regarding claim 25, Brown discloses the use of SRAM by DSPs for program codes and data storage. See column 8, lines 12-13.

3.   Claims 26 and 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Morgan over claim 1 above and further of Admitted Prior Art. Herein after APA.

Regarding claim 26 as best understood, Brown in view of Morgan discloses all the limitations of claim 1 as indicated above. Brown in view of Morgan do not discloses a service program and a plurality of service programs are needed by a digital signal processor.

However, APA discloses storing all the algorithms (i.e. service programs) needed by a DSP in its memory. Specification page 1, lines 19-20.

It would have been obvious to a person of ordinary skill in the art, at the time the invention was made to download a plurality of software modules to a specific DSP of the system Brown in view of Morgan. A person of skill in the art would be motivated by recognizing that a DSP may requires a plurality of module software as indicated by the APA. The advantage would be the ability to provide a multiplicity of processing by a single DSP of Brown in view of Morgan system as need arises.

Response to Arguments

4.   Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: See Form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, To Doris can be reached on (571) 272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AHMED ELALLAM
Examiner
Art Unit 2616
9/6/06

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER